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| 09/521,640 | 03/10/2000 | Joseph R Byrum | 04983.0120.us01/38-21(157) | 9889 |

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ARNOLD & PORTER
IP DOCKETING DEPARTMENT; RM 1126(b)
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EXAMINER

BORIN, MICHAEL L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1631 | 13 |

DATE MAILED: 06/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | |
|--------------------------------------|-------------------------------------|
| Application No. 09/521,640 | Applicant(s) Byrum et al. |
| Examiner Michael Borin | Art Unit 1631 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address. --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on Apr 10, 2002

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-7 and 16-22 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-7 and 16-22 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

4) Interview Summary (PTO-413) Paper No(s). _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

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DETAILED ACTION

Status of Claims

1. Amendment filed 4/18/02 is acknowledged. Claims 8-15 are canceled. Claims 16-22 are added. Claims 1,4 are amended. Claims 1-7, 16-22 are pending.

2. Rejections not reiterated from previous Office actions are hereby withdrawn. The following rejections constitute the complete set presently being applied to the instant application.

Claim Rejections - 35 USC § 112, first paragraph.

3. Claims 1-7 and 16-22 remain rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The rejection is maintained for the reasons of record as set forth for claims 1-7 in previous Office action, paragraph #5.

Applicant argues that specification, p.82, describes target sequences of 30-300 nucleotides. Examiner disagrees. The indicated page 82 addresses target sequences of 30-300 nucleotides as a target for a computer-based search system. Neither p.

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82, nor other pages indicated by applicant describe any single representative of the genus of fragments of 30-300 nucleotides of SEQ ID No.2.

4. Claims 1-7 and 16-22 remain rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The rejection is maintained for the reasons of record as set forth for claims 1-7 in previous Office action, paragraph #6.

The specification discloses nucleic acids of SEQ ID No.2. Claims limited to nucleic acid of SEQ ID No.2 would meet the written description and enablement provisions of 35 U.S.C. §112, first paragraph. However, the claims are directed to nucleic acids comprising said SEQ ID No. 1 (or, rather, comprising fragments thereof) and thus encompass products such as full-length DNAs and genes. None of these sequences are described in the instant specification at the structural level. The specification provides insufficient specification for the genus encompassed by the claim. Examiner maintains that the use of term "comprising" is interpreted to encompass full-length gene sequences that have not been disclosed. The specification describes only SEQ ID No. 2 and no other longer sequences containing them. Note,

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in addition, that even SEQ ID No.2 is not fully described as it contains at least two "n" or wild cards.

Claim Rejections - 35 U.S.C. § 101/ 112-1

5. Claims 1-7 and 16-22 are rejected under 35 U.S.C. § 101 because the claimed invention lacks patentable utility due to its not being supported by either specific and/or substantial utility or a well established utility. The rejection is maintained for the reasons of record as applied to claims 1-7 in previous Office action, paragraph #8.

The invention as claimed is drawn to nucleic acids comprising nucleotide fragment of SEQ ID No.2 having 30-300 nucleotides. Such nucleic acids are capable of hybridizing to nucleic acid having SEQ ID No. 2. Nucleic acid of SEQ ID No. 2 itself is not supported by a specific asserted utility because the uses disclosed in general for all nucleic acids (SEQ ID Nos. 1 to 304905) are not specific and are generally applicable to any nucleic acid. The specification states that the nucleic acid compounds may be useful as probes for assisting in the isolation of full-length cDNAs or genes which would be used to make protein and optionally further usage to make the corresponding antibodies, plants, gene mapping, isolation of homologous sequences, detection of gene expression, and for numerous other generic genetic engineering usages. These are non-specific uses that are applicable to nucleic acids

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in general and not particular or specific to the nucleic acid of SEQ ID No. 2 being claimed.

The specification identifies SEQ ID NO. 2 as being from library from soybeans SEQ ID NO. 2 is 465 nucleotides in length and contains at least two wild cards. No open reading frame, start/stop codons, or encoded protein is identified in the specification for SEQ ID NO. 2. No specific biological function is asserted for any protein encoded by SEQ ID NO. 2. General uses of polynucleotides are set forth in the specification as filed. None of these is considered to be specific and substantial in view of the limited information provided in the specification. No plant traits are attributed to SEQ ID NO. 2. No complete gene is disclosed for SEQ ID NO. 2. No DNA maps or chromosomal locations are identified. Nor polymorphisms are identified. One of ordinary skill in the art would have reason to doubt that SEQ ID NO. 2 was full length based upon its short length. The claimed sequence is an uncharacterized piece of DNA that can not be used as a molecular tag, in expression studies, mapping and so forth, without further research and experimentation as to identify properties of the claimed SEQ ID NO.2. In the absence of such characterization, no meaningful information is provided. Applicant's claimed SEQ ID NO.2 is a starting material for further research and not a research tool. Applicant asserts that the sequence can be used to determine the presence or identity of polymorphisms yet no polymorphisms

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for any of the sequences are disclosed as described. Applicant asserts that the sequences can be used for expression profiling but fails to indicate how this would be done and what information it would provide without a need for further experimentation and research.

6. Claims 1-7 and 16-22 are also rejected under 35 U.S.C. § 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art would not know how to use the claimed invention

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Borin whose telephone number is (703) 305-4506. Dr. Borin can normally be reached between the hours of 8:30 A.M. to 5:00 P.M. EST Monday to Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Woodward, can be reached on (703) 308-4028. The fax telephone number for this group is (703) 305-3014.

Any inquiry of a general nature or relating the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

June 21, 2002

MICHAEL BORIN, PH.D
PRIMARY EXAMINER

mlb

